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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,047	09/08/2003	Dan A. Marohl	008218	3266

7590

07/13/2005

Patent Counsel
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EXAMINER

ELEY, TIMOTHY V

ART UNIT	PAPER NUMBER
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3724

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/659,047	Applicant(s) MAROHL ET AL.	
	Examiner Timothy V. Eley	Art Unit 3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/3/03, 3/19/04, 6/9/04, 7/9/04, 11/19/04</u> | 6) <input type="checkbox"/> Other: ____. |

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DETAILED ACTION

Drawings

1. The drawings were received on June 7, 2004. These drawings are approved.

Specification

2. The disclosure is objected to because "a" (page 3, line 28, second occurrence) should be deleted.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 3-5, 6-8, 17, 19, and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- The following phrases in the claims are vague, indefinite, and/or awkwardly and confusingly worded:

- o "a circumference . . . surface" (claim 3, lines 2 and 3).

- Is the circumference greater than the top surface, or is the circumference greater nearer to the bottom surface than it is nearer to the top surface?

- o --the-- should be inserted before "outer" (claim 4, line 1).

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- o "a circumference . . . surface"(claim 6, lines 2 and 3).

Is the circumference greater than the bottom surface, or is the circumference greater nearer to the top surface than it is nearer to the bottom surface?

- o "a circumference . . . portion"(claim 17, lines 2 and 3).

This phrase is vague, indefinite, and awkwardly and confusingly worded.

- o "a circumference . . . ring"(claim 19, lines 3-5). Is the circumference smaller than the top surface, or is the circumference smaller nearer to the bottom surface than it is nearer to the top surface?

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-5,10,12,14,15,17, and 18 are rejected under 35

U.S.C. 102(b) as being anticipated by Jackson et al(5,643,061).

- Jackson et al discloses a retaining ring(49) comprising; a generally annular body having a top surface, a bottom surface, an inner diameter surface, and an outer diameter surface, wherein the outer diameter surface includes an outwardly projecting

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flange having a lower surface, and the bottom surface includes a plurality of channels. See figures 2, and 6-10.

- Regarding claims 3,4, and 5 see the tapered section in figure 6; and applicant's recitation of vertical would depend upon the orientation of the retaining ring.
- Regarding claim 10, there appears to be holes in figure 2 for mounting the retaining ring; and in addition, the prior art of figure 1, discloses that screws may be mounted in holes in the top of the retaining ring to aid in mounting
- Regarding claim 12, one of the elements 121 may function as a "drain hole".

7. Claims 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Lai et al(6,224,472) or Perlov et al(6,143,127), each considered independently.

- Both Lai et al and Perlov et al disclose a retaining ring having an inner diameter surface with a tapered surface, wherein a circumference of the inner diameter of the retaining ring is smaller toward a bottom surface than it is toward a top surface of the retaining ring. See figure 10 of Lai et al, and figure 6B of Perlov et al.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior

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art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 9,11,13, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson et al.

- Jackson et al is explained above.
- Jackson et al does not disclose eighteen channels in the bottom surface, eighteen holes in the top surface, nor the exact dimensions of the inner diameter surface.
- The exact number of channels and holes, and the exact dimensions of the inner diameter surface would have been obvious to one having ordinary skill in the art at the time the invention was made since clearly the number of channels and holes would depend upon the desired removal of fluid, and the desired mounting security of the retaining ring, and the size of the inner diameter would depend upon the dimensions of the workpiece to be processed.

10. Claims 1,2,6-9,13-16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perlov et al in view of Jackson et al.

- Perlov et al is explained above. Perlov et al further discloses a retaining ring(50) comprising a generally annular body having a top surface, a bottom surface, an inner diameter surface, and an outer diameter surface, wherein the outer diameter surface includes an outwardly projecting flange having a lower surface,

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and the bottom surface includes a plurality of channels. See figures 6A-6C.

- However, Perlov et al does not disclose a plurality of channels in the bottom surface of the retaining ring.
- Jackson et al as explained above discloses a plurality of channels in the bottom surface of a retaining ring for allowing fluid to pass therethrough.
- Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Perlov et al device by providing channels in the bottom surface thereof in order to allow fluid to pass therethrough as taught by Jackson et al.
- Regarding claim 7, applicant's recitation of vertical would depend upon the orientation of the retaining ring.
- Regarding claims 9,13 and 16, Perlov et al as modified does not disclose eighteen channels in the bottom surface, nor the exact dimensions of the inner diameter surface. However, the exact number of channels, and the exact dimensions of the inner diameter surface would have been obvious to one having ordinary skill in the art at the time the invention was made since clearly the number of channels would depend upon the desired removal of fluid, and the size of the inner diameter would depend upon the dimensions of the workpiece to be processed.

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- Regarding claim 12, one of the channels may function as a "drain hole".

11. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson et al in view of Cesna et al(6,089,961).

- Jackson et al is explained above.
- However, Jackson et al does not specifically disclose at least one separate drain hole extending from the inner diameter surface to the outer diameter surface.
- Cesna et al discloses that it is well-known in the art to provide at least one drain hole(74) in a retaining ring which extends from an inner diameter surface to an outer diameter surface in order to allow air to escape.
- Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Jackson et al device by providing at least one drain hole extending from the inner diameter surface to the outer diameter surface in order to allow the escape of air as taught by Cesna et al.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- The cited prior art discloses retaining rings.

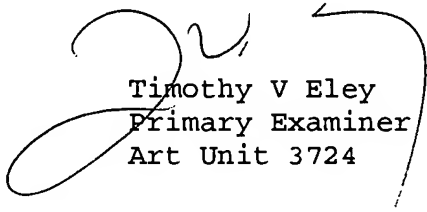
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy V. Eley

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whose telephone number is 571-272-4506. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan N. Shoap can be reached on 571-272-4514. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Timothy V Eley
Primary Examiner
Art Unit 3724

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